Postal Regulatory Commission Submitted 3/27/2014 3:40:41 PM Filing ID: 89506 Accepted 3/27/2014

# BEFORE THE POSTAL REGULATORY COMMISSION WASHINGTON, D.C. 20268–0001

PERIODIC REPORTING (PROPOSALS ONE THROUGH TWO)

Docket No. RM2014-4

PETITION OF THE UNITED STATES POSTAL SERVICE FOR THE INITIATION OF A PROCEEDING TO CONSIDER PROPOSED CHANGES IN ANALYTICAL PRINCIPLES (PROPOSALS ONE THROUGH TWO)

Pursuant to 39 C.F.R. § 3050.11, the Postal Service requests that the Commission initiate a rulemaking proceeding to consider two proposals to change analytical principles relating to the Postal Service's periodic reports. The proposals, labeled Proposals One through Two, are discussed in the attached text.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

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## **Proposal One**

# PROPOSED CHANGE IN RPW METHODOLOGY FOR USE OF ADDITIONAL POSTALONE! AND SELF SERVICE KIOSK DATA TO REPLACE ODIS-RPW STATISTICAL SAMPLING ESTIMATES

### **OBJECTIVE:**

This proposal seeks a change in the methodology in the RPW Report for measuring the national totals of revenue, pieces, and weight by using additional 'census' source system data from PostaOne! and the Self Service Kiosk (SSK). The current RPW methodology relies on data collected in the ODIS-RPW probability sampling system. Business Reply Mail (BRM), International Business Reply Service (IBRS), and Merchandise Return Service (MRS) products and services from PostalOne!, adjusted to trial balance general ledger accounts, would replace ODIS-RPW statistical sampling estimates. In addition, all products and extra services associated with Self Service Kiosks or SSKs non-insured transactions would replace corresponding ODIS-RPW statistical sampling estimates. SSKs were formerly termed Automated Postal Centers or APCs, which are located in most Postal Service retail outlets.

RPW currently uses almost all PostalOne! data, but it does not use its Business Reply Mail (BRM), Merchandise Return Service (MRS), and International Business Reply Mail Service (IBRS) products. This proposal is to use PostalOne data for these products. The *PostalOne!* system accounts for the vast majority of reply mail and MRS activity in the nation. In order to estimate the few instances when *non-PostalOne!* offices (i.e., non-automated offices) record BRM, IBRS, and/or MRS, a ratio adjustment

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process will be developed based on the reply mail and MRS trial balance general ledger accounts relative to the comparable totals from the *PostalOne!* system.

RPW currently uses SSK data for transactions involving insured extra services for First-Class single piece, Priority Mail and Standard Post. The proposed methodology would add the remaining SSK transactional data to RPW (non-insured extra service transactional data) in lieu of ODIS-RPW statistical sampling estimates.

### **BACKGROUND:**

# BRM, IBRS, and MRS Product Descriptions

BRM service enables a permit holder to receive First-Class Mail and Priority Mail back from customers and pay postage and a per piece fee only for the pieces returned. BRM cards, envelopes, self-mailers, cartons, and labels may be distributed by a BRM permit holder in any quantity for return to any post office in the United States and its territories and possessions, including military post offices overseas. Qualified Business Reply Mail (QBRM) is a subset of BRM available for specific automation-compatible letter-size pieces that qualify for an automation postage rate and a reduced per piece fee. Basic and high-volume per-piece fees are available for BRM and QBRM alike.

IBRS is similar to domestic business reply mail service. It allows envelopes and cards to be distributed to and deposited in certain foreign countries for return to the addressee in the United States without prepayment of postage. Postage and service fees are collected from the U.S. addressee at delivery. Extra services cannot be used with IBRS. IBRS is available to every country and territorial possession in the world that is a destination point for U.S.—originating international mail. In order to initiate IBRS

mail the U.S. sender must be a BRM permit holder who has paid the prescribed accounting fee to participate in the QBRM program.

MRS allows an authorized permit holder to pay the postage and special service fees on single-piece rate First-Class Mail, Priority Mail, and Package Services parcels that are returned to the permit holder by the permit holder's customers via a special label produced by the permit holder. Merchandise return service is available to the permit holder at any post office where authorized by an approved application. MRS parcels are charged single-piece rate postage and extra service fees.

# **SSK and RPW Reporting**

In most Postal Service retail outlets there are self-service kiosks for non-window transactions. These kiosks are termed Self Service Kiosks or SSKs. Previously, these kiosks were termed Automated Postal Center or APCs. For the purposes of this filing we will use the term SSK.

In 2009, as Proposal Fifteen in Docket No. RM2009-10, the Postal Service filed and was granted the request to replace statistical estimates of non-insured, non-registered PVI indicia with Point of Sale (POS) census transactions. As indicated in that filing (last paragraph, Background section), the Postal Service had previously been using census sources for POS insured, registered, COD and Certificate of Mailing (COM) transactions for RPW reporting. Since that time, the Postal Service began using SSK transactional data for insured mailpieces as well.

# **Current RPW Reporting Using ODIS-RPW**

The Origin-Destination Information System - Revenue, Pieces and Weight (ODIS-RPW) is a probability-based destinating mail sampling system used to support

the Postal Service's many varied business needs for mail revenue and volume. ODIS-RPW primarily supplies official RPW estimates of revenue, volume and weight for single-piece stamped and metered indicia mail.

One of the ODIS-RPW mail characteristics recorded by Statistical Programs data collectors is the indicia, or source payment. Indicia types include, but are not limited to, stamps, meter, permit imprint and Information Based Indicia (IBI), and Postal Validation Imprint (PVI). SSK is a type of IBI indicia; having a similar 2-D barcode that PC Postage providers put on their mail pieces. ODIS-RPW data collectors record an SSK mailpiece as IBI indicia and then indicate that it is 'SSK.' Other mail characteristic recorded by Statistical Programs data collectors are the mail class, product, and mail markings.

Using these characteristics, BRM, IBRS and MRS (PostalOne!) mail piece and extra service estimates from ODIS-RPW can be replaced with PostalOne census source information. Similarly, ODIS-RPW estimated revenue, pieces and weight for post office kiosk mail pieces and extra services can be replaced with SSK transactional census source information.

# **Problems with the Current Methodology**

When an ODIS-RPW data collector encounters a BRM, IBRS, or MRS piece, it is not always evident from the markings on the piece what the relevant return service category (e.g., Non-QBRM or QBRM) and extra services are. The ODIS-RPW data collector must inquire with the operations clerk as which return service was paid for that mail piece. This can be challenging in the fast moving time frame around mail arrival from the processing plant, distribution to the carriers and carrier pull-down for street delivery. In addition, BRM, IBRS, and MRS pieces can be hard to capture for small

firms and entities as they are rare items in the post offices' mail volume. SSK indicia markings appear in small letters on a mail piece and may be difficult to detect.

Lastly, ODIS-RPW is statistical sampling system that produces point estimates with sampling error. Small sample sizes can cause sampling error to be above acceptable levels. Census information by definition is without sampling error.

### PROPOSAL:

The proposed RPW methodology would switch from sample data provided by the ODIS-RPW sampling system to census data provided by the *PostalOne!* system and the SSK.

### PostalOne! Data

The *PostalOne!* system is part of the counting, rating, and billing process that BRM, IBRS, and MRS pieces go through before final delivery. This process occurs at destination plants or delivery units. Once all of the mail for a customer account is counted and rated, that account is billed either using the *PostalOne!* system or a manual process. Postage for customers who are billed through the *PostalOne!* system is automatically deducted from those customers' advanced deposit accounts. Postage for customers who are billed manually is collected upon pickup or deducted from a postage due account.

The *PostalOne!* system accounts for the vast majority of BRM, IBRS, and MRS activity in the nation. The volume from non-PostalOne offices are trivial. Approximately 1 percent of total BRM volume comes from non-PostalOne offices; and less than 0.1 percent of total MRS volume comes from non-PostalOne offices. In order to estimate the few instances when *non-PostalOne!* offices rate and bill BRM, IBRS, and MRS mail,

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ratio adjustments can be used based on the reply mail and MRS trial balance general ledger accounts relative to the comparable totals from the *PostalOne!* system. To this end, beginning April 2013, two new trial balance accounts were created for the use of reply mail services and merchandise return services throughout the nation.

Using these new accounts, BRM/IBRS and MRS non-*PostalOne!* adjustment factors can be created.

As a representative example, the BRM/IBRS adjustment factors were calculated for four months in FY2013. In April 2013 the adjustment factor was 1.01 percent, May 1.005 percent, June 0.674 percent<sup>1</sup>, and July 1.003 percent. For MRS, the April 2013 adjustment factor was 1.001 percent, and for May through July 2013, 1.000 percent.

# Retail Data Mart (RDM) for SSK Transactions

The RDM is the current reporting system used in RPW for Insured extra service transactions out of the SSK. RDM is all used for Point of Sale (POS) transactional data in RPW. As such the RDM reporting system for SSK transactions has a proven track record.

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<sup>&</sup>lt;sup>1</sup> During June 2013, a large promotional credit was deducted from the reply mail account. Removing this credit results in an adjustment factor of close to 1.0 percent.

### **RATIONALE:**

The proposed change in methodology is designed to utilize the broad, national coverage of the census data within the *PostalOne!* system and to harness the reply mail and MRS subject-matter expertise of personnel at postage due units. With the creation of new trial balance accounts for the exclusive use of reply mail and MRS mail, the BRM/IBRS and MRS activity can be more accurately reported.

Similarly, SSK system data is a complete source of transactional level data for the mailpiece revenue and volume characteristics and their associated extra services.

# **IMPACT:**

In order to gauge the impact of switching from ODIS-RPW statistical sampling estimates to census data a comparison was made for the period Q1 FY2013 through Q3 FY2013. The attached table shows the changes over this time period at the RPW Report level by mail class. Instead of showing each extra service the total is displayed for the sum of all affected extra services. Shown are revenue, pieces and weight incorporating the new census sources ('proposed'), the published RPW report totals, the differences, and the differences expressed as a percent change.

For quarters 1 through 3 FY2013, total First-Class single-piece letter and card revenue would have increased 0.2 percent, and volume 0.1 percent. Parcel Post/Standard Post for this time period would have increased 1.9 percent for revenue and 4.5 percent for volume. International Special Services, where the IBRS is reported, would have seen volume increase 143,000 pieces with no change in revenue. Priority Mail revenue and volume would have decreased -0.5 percent and -0.4 percent, respectively. Extra service revenue associated with the mail products affected in this

# **PROPOSAL ONE**

proposal would have increased \$7 million dollars for the three quarters of FY2013.

This includes the BRM mail fees and the extra services associated with the First-Class,

Standard Post and Priority Mail products.

# Proposal One Table: Comparison of Proposed to RPW Report Revenue, Pieces and Weight - Q1 FY2013 through Q3 FY2013 (Data in Thousands)

Service Category	REVENUE				PIECES				WEIGHT			
	Quarter 1 through Q3 FY2013 Proposed RPW Report		Change Proposed over RPW Amount Percent		Quarter 1 through Q3 FY2013 Proposed RPW Report		Change Proposed over RPW Amount Percent		Quarter 1 through Q3 FY2013 Proposed RPW Report		Change Proposed over RPW Amount Percent	
=======================================	<u>·</u>	=========	========	======	========	========	======	======	========	======	======	======
Total Single-Piece Letters and Cards	8,169,058	8,152,598	16,460	0.2%	17,575,498	17,550,059	25,439	0.1%	542,454	525,221	17,233	3.3%
Parcel Post/Standard Post 1/	560,867	550,633	10,234	1.9%	47,721	45,664	2,057	4.5%	346,194	337,036	9,158	2.7%
Other International Special Services	14	14	0	0.0%	439	296	143	48.1%				
Total Priority Mail	4,824,014	4,849,809	-25,795	-0.5%	659,668	662,642	-2,974	-0.4%	1,373,579	1,380,493	-6,914	-0.5%
Extra Services/Mail Fees 2/	57.185	50,164	7.021	14.0%	458,332	413,702	44,629	10.8%				

<sup>1/</sup> Parcel Post/Alaska Bypass and Standard Post have been combined for the purposes of this analysis 2/ BRM reply fees and extra services associated with MRS and SSK products are included together

# **PROPOSAL TWO**

# TRACS Change to Fed Ex Night Turn Distribution Key

# Proposal:

The Postal Service proposes a methodology change to replace the manner in which the distribution key is developed in the Transportation Cost System (TRACS) Air Subsystem for the Fed Ex Night Turn air carrier. This distribution key is used to assign Fed Ex Night Turn volume-variable costs in Cost Segment (CS) 14 (purchased transportation costs) to postal products. Currently, the distribution key is developed through an ongoing statistical sampling for mail transported by the Fed Ex Night Turn air carrier. Under the proposed methodology, the distribution key would be developed relying on data from the Surface Air Management System (SAMS), the Product Tracking System (PTS), Foreign Postal Settlement (FPS) system, and data regularly collected by TRACS. The proposed method utilizes the wealth of operations data and reduces our reliance on sampling.

#### Rationale:

Certain portions of the Postal Service census data have matured to the point where it is possible to develop a reliable Fed Ex Night Turn distribution key by using readily available existing data. It is no longer necessary to maintain a separate, ongoing sampling system to collect data specifically for the Fed Ex Night Turn air carrier.

# Impact:

The table below compares the Fiscal Year (FY) 2013 Fed Ex Night Turn Cost
Segment 14 applicable costs calculated using the current and proposed
methodologies. At this aggregate level, there is virtually no measurable change in
cost per piece for any of the products or components.

Analysis of Fed Ex Night FY13 CS14 Volume Variable Costs									
COMPONENT	Night Turn Old	Night Turn New	Net Changes	FY13 Volume	Change in Cost per Piece				
UNITS	\$(000)	\$(000)	\$(000)	(000)	\$				
FIRST-CLASS MAIL									
Single-Piece Letters	\$1,854	\$656	-\$1,198	21,524,418	\$0.00				
Single-Piece Cards	\$120	\$7	-\$113	1,052,903	\$0.00				
Presort Letters	\$1,240	\$2,757	\$1,517	38,938,318	\$0.00				
Presort Cards	\$4	\$72	\$68	2,419,290	\$0.00				
Flats	\$1,114	\$757	-\$357	1,898,586	\$0.00				
Parcels	\$60	\$40	-\$21	247,716	\$0.00				
TOTAL FIRST-CLASS	\$4,392	\$4,287	-\$104	66,081,231	\$0.00				
STANDARD MAIL									
High Density & Saturation Letters	\$0	\$0	\$0	5,711,635	\$0.00				
High Density & Saturation Flats & Parcels	\$1	\$0	-\$1	11,337,697	\$0.00				
Every Door Direct Mail	\$0	\$0	\$0	974,774	\$0.00				
Carrier Route	\$15	\$4	-\$10	9,507,247	\$0.00				
Letters	\$408	\$31	-\$378	47,790,739	\$0.00				
Flats	\$431	\$33	-\$398	5,568,019	\$0.00				
Parcels	\$1	\$0	\$0	72,447	\$0.00				
TOTAL STANDARD MAIL	\$856	\$69	-\$788	80,962,558	\$0.00				
TOTAL PERIODICALS	\$616	\$79	-\$537	6,358,973	\$0.00				
PACKAGE SERVICES									
Alaska Bypass	\$0	\$0	\$0	879	\$0.00				
Parcel Post	\$0	\$12	\$12	29,586	\$0.00				
Bound Printed Matter Flats	\$22	\$6	-\$16	229,613	\$0.00				
Bound Printed Matter Parcels	\$5	\$2	-\$3	216,387	\$0.00				
Media and Library Mail	\$7	\$10	\$3	93,706	\$0.00				
TOTAL PACKAGE SERVICES	\$34	\$30	-\$4	\$570,171	\$0.00				
US POSTAL SERVICE	\$7,318	\$4,513	-\$2,805	633,645	\$0.00				
FREE MAIL	\$14	\$3	-\$11	54,791	\$0.00				
TOTAL MARKET DOMINANT	\$13,230	\$8,981	-\$4,249	148,302,396	\$0.00				
COMPETITIVE MAIL	\$79,602	\$79,744	\$142	2,791,867	\$0.00				
INTERNATIONAL	\$95,560	\$99,667	\$4,107	902,932	\$0.00				
TOTAL MAIL	\$188,392	\$188,392							

# **Development of Fed Ex Night Turn Distribution Key**:

The Fed Ex Night Turn distribution key is developed quarterly, based upon data from the SAMS, PTS, FPS system, and data regularly collected by TRACS.

The SAMS network collects dispatch and routing (D&R) information for the four main air carriers, or air modes. These air modes include Fed Ex Day Turn, Fed Ex Night Turn, Commercial Air, and UPS. The D&R tag identifies air mode specific information including the air carrier, origin and destination city airport codes, item weight and primary mail class. The primary mail class is the Air Contract Transportation (ACT) tag code. A mail item is assigned an ACT tag code based on the predominant mail class of the mail item's contents. The major mail class codes are: F, P, E and I. These correspond to First–Class Mail, Priority Mail, Priority Mail Express and International mail, respectively. We define all other ACT tag code mail class groups here as 'O' for 'other'.

The Night Turn frame is defined as the SAMS Night Turn total assigned D&R pounds. First, the frame is partitioned into these five different ACT tag components. Second, these five ACT tag components are then separated into two groups. The first group only contains ACT tag E. The other group contains the remaining ACT tags; F, P, I, and O. For FY13, ACT tag E comprised 94.5 percent of the Night Turn frame pounds. These two groups receive different treatments. We will first address the ACT tag E treatment.

A National Distribution List file is used to create an air mapping matrix by ZIP Code, Sectional Center Facility (SCF), and servicing air routing facility.

Available ACT tag E data for five products, (Priority Mail Express, Express Mail

International, Inbound EMS, Canada EMS, and USPS Priority Mail Express), is retrieved from the Product Tracking System (PTS). Since PTS does not have weight data for Inbound EMS and Canada EMS, the weight per piece data by origin country are collected from FPS, and merged with the PTS data. The PTS data are then merged with the air mapping matrix.

The PTS air matrix data are overlaid and merged with the SAMS data by ZIP Code. The SAMS data include the primary mail class, ACT tag code summarized as 'E', class of Priority Mail Express These SAMS data include four major air modes; Fed Ex Day Turn, Fed Ex Night Turn, Commercial Air, and UPS. The PTS products are spread between the four air modes based upon the SAMS weight proportion. At this point the data are split into air and ground components. PTS control totals are used to create expansion factors for each PTS product. The air/ground split is based upon a ZIP Code merge that is dependent upon a cleaned data set. To account for data that fail to merge, the expansion factor, in equation 1.1, adjusts the data back to match the original control total.

The following notation is used in the calculation process:

A: Air mode;

AP: Air Product pounds;

c: mail class (ACT tag),  $c \in \{E, P, I, F, "O"\}$ ;

G = Ground Product pounds;

i = 1,2,...5: i ∈ {Priority Mail Express, Express Mail International, Inbound EMS,
 Canada EMS, USPS Priority Mail Express);

j = 1,2,...n:  $j \in \{All \text{ products allocated by TRACS to purchased transportation:}$ 

First-Class Single Piece Letters, Presort Letters, etc.);

LB = total pounds;

lb-dk = Distribution key based on pounds;

 $m: mode, m \in \{Night Turn, Day Turn, Commercial Air, UPS\};$ 

OD: Airport Origin/Destination Pair;

ODZIP: Origin/Destination ZIP Code Pair;

P = Product pounds;

P<sub>PCNTL</sub> = Product control pounds, after the air/ground split expansion factor and tare factor applied;

 $P_S = SAMS$  pounds;

T = Total Product pounds (before air/ground split).

(1.1)

$$\sum_{ODZIP} P_i = \sum_{ODZIP} P_i \times \frac{\sum_{T} P_i}{\sum_{AP,G} P_i}$$

Next, tare weight factors are applied to Priority Mail Express, Express Mail International, and USPS Priority Mail Express. These tare weight factors come from TRACS sampling data continuing to be collected from the other air modes. Tare weight factors are not applied to the two international PTS products because the FPS weight data are already in gross pounds.

Equations 1.2 through 1.5 demonstrate the transformation of the PTS product to be aligned with Air Mode 'E' pounds based upon SAMS proportions. The PTS product weight does not change.

(1.2)

If 
$$\sum_{OD,ODZIP} P_S > 0$$
 then,

$$X_{ODZIP} = \frac{\sum_{ODZIP} P_s}{\sum_{OD,ODZIP} S}$$

$$X_{OD} = \frac{\sum_{OD} P_s}{\sum_{OD,ODZIP} P_s}$$

Else if 
$$\sum_{OD,ODZIP} P_S \le 0$$
 then,

$$X_{ODZIP} = 0$$

$$X_{OD} = 0$$

(1.3)

If 
$$\sum_{ODZIP} P_S > 0$$
 then,

$$X_{A,m,ODZIP} = \frac{\sum_{ODZIP} P_{A,m,S}}{\sum_{ODZIP} P_{S}}$$

Else if 
$$\sum_{ODZIP} P_S \le 0$$
 then,

$$X_{A,m,ODZIP} = 0$$

(1.4) 
$$If \sum_{OD} \boldsymbol{P}_{S} > 0 \text{ then,}$$
 
$$\boldsymbol{X}_{A,m,OD} = \frac{\sum_{OD} \boldsymbol{P}_{A,m,S}}{\sum_{OD} \boldsymbol{P}_{S}}$$
 Else if  $\sum_{OD} \boldsymbol{P}_{S} \leq 0$  then, 
$$\boldsymbol{X}_{A,m,OD} = 0$$

(1.5) 
$$P_{A,ODZIP,i} = (P_{A,ODZIP,i} \times X_{ODZIP} \times X_{A, m, ODZIP}) + (P_{A,ODZIP,i} \times X_{OD} \times X_{A, m, OD})$$

Equation 1.6 constrains the PTS product by the SAMS control total:

(1.6) 
$$If \sum_{A,m,OD} P > \sum_{A,m,OD} P_{S},$$

$$Then \sum_{A,m,OD} P_{i} = \sum_{A,m,OD} P_{i} \times \frac{\sum_{A,m,OD} P_{S}}{\sum_{A,m,OD} P_{S}}$$

Equation 1.7 expands the products in the four air modes to the SAMS Air Mode weight control total:

(1.7)

$$P_{A,m,i} = P_{A,m,i} \times \frac{P_{A,m,S}}{\sum_{A,m} P_{i}}$$

At this point, equation 1.8 applies PTS product control pound totals to the Night Turn mode products.

(1.8)

$$P_{A, m = Night, i} = P_{A, m = Night, i} \times \frac{P_{PCNTL, m = Night, i}}{\sum_{A, m} P_{i}}$$

Equation 1.9 once applies SAMS Night Turn control totals to the Night Turn products.

(1.9)

$$P_{A, m = Night, i} = P_{A, m = Night, i} \times \frac{\sum_{A, m = Night} P_{S}}{\sum_{A, m = Night} P_{i}}$$

This concludes the treatment and development of the distribution key for the ACT tag 'E' portion of Fed Ex Night Turn frame. At this point in the process, the five PTS treatment products; Priority Mail Express, Express Mail International, Inbound EMS, Canada EMS, and USPS Priority Mail Express sum weight equals the Night Turn frame 'E' pounds, and the Night Turn 'E' distribution key is:

(1.10)

$$r_{A,lb-dk_{mci}} = \frac{LB_{mci}}{\sum_{mc} LB_{mc}}$$

where m=Night Turn, c=E, and  $i \in \{Priority Mail Express Mail, Express Mail International, Inbound EMS, Canada EMS, USPS Priority Mail Express<math>\}$ .

The remaining distribution keys for the remaining four Night Turn ACT groups are developed by using other, available TRACS sampling air data. A distribution key by ACT tag is produced for each air mode and then weighted by the mode SAMS control ACT tag weight to produce a composite ACT tag distribution key.

(1.11)

$$\mathbf{r}_{A,lb-dk_{ci}} = \frac{\sum_{m} (lb - dk_{mci} \times LB_{mc})}{\sum_{mc} LB_{mc}}$$

where  $m \in \{\text{Day Turn, Commercial Air, UPS}\}$ , and  $c \in \{F, I, O, P\}$ .

At this point, five distribution keys have been developed for each of the five ACT tag categories that have been assigned to the Night Turn frame. To create the final Night Turn distribution key, these five ACT tag keys are weight by their corresponding frame weight.

(1.12)

$$\mathbf{r}_{A,m=Night,lb-dk_i} = \frac{\sum_{c} (lb - dk_{ci} \times LB_c)}{\sum_{mc} LB_{mc}}$$